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S. SANJAY-GOPAL, et al.)	
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Serial No.: 10/572,776)	
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For: ENABLEMENT OF QUICK)	
REMOTE ACCESS TO CT)	
SCANS TO IMPROVE)	
WORKFLOW AND PATIENT)	
THROUGHPUT)	
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APPEAL BRIEF

Commissioner For Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This is an Appeal from the Final Rejection of June 8, 2011.

The Notice of Appeal was filed and the Notice of Appeal fee was filed on August 4, 2011.

Authorization to charge the 37 CFR 41.20(b)(2) Appeal Brief fee to the applicant's Deposit Account accompanies this Brief.

CERTIFICATE OF ELECTRONIC TRANSMISSION

I certify that this **APPEAL BRIEF** and accompanying documents in connection with U.S. Serial No. 10/572,776 are being filed on the date indicated below by electronic transmission with the United States Patent and Trademark Office via the electronic filing system (EFS-Web).

October 4, 2011

/Patricia A. Heim/

Date

Patricia A. Heim

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(i) REAL PARTY IN INTEREST

The Real Party in Interest is the Assignee, KONINKLIJKE PHILIPS
ELECTRONICS, N.V.

(ii) RELATED APPEALS AND INTERFERENCES

None.

(iii) STATUS OF CLAIMS

Claims 1-10, 15, and 22-30 are pending.

Claims 1-10, 15, and 22-30 stand rejected.

Claims 11-14 and 16-21 have been cancelled.

No claims are allowed, confirmed, withdrawn, or objected to.

The rejection of claims 1-10, 15, and 22-30 is being appealed.

(iv) STATUS OF AMENDMENTS

An Amendment After Final accompanies this Brief. This amendment corrects an obvious improper claim dependency mistake (a claim depending from a cancelled claim). This Brief assumes entry of the accompanying Amendment.

(v) SUMMARY OF CLAIMED SUBJECT MATTER

1. An imaging communication system {12} for communicating between an imaging workstation {18}, from which imaging protocols are conducted and at which diagnostic images are displayed, and one or more medical professionals, the system comprising:

the workstation {18} including:

an input device {38, 48} by which a user selects and addresses one or more medical professionals and selects diagnostic image representations to be sent to the one or more selected medical professionals; {Fig. 2; p. 4, l. 22 – p. 5, l. 16}

a unit {46, 50} which formats the at least one selected medical professional address and the selected diagnostic image representations into a wireless transmission format and wirelessly transmits the selected electronic image representation with the selected medical professional address;

a plurality of remote units {60}, each remote unit including:

a receiver {62} which receives wireless transmissions from workstations and from other remote units; {Fig. 3; p. 5, l. 17}

an address reader {68} connected with the receiver which address reader examines each received wireless transmission for a corresponding preselected address; {Fig. 3, p. 5, l. 24 – p. 6, l. 10}

a video processor {70} connected with the receiver to, in response to the address reader finding the corresponding preselected address in the received wireless communication, convert a diagnostic image portion of the received wireless transmission into an appropriate format for human-readable display; and {Fig. 3; p. 5, l. 24 – p. 6, l. 10}

a display device {72} on which the diagnostic image is displayed in human-readable format. {Fig. 3, p. 5, l. 24 – p. 6, l. 10}

2. The system as set forth in claim 1, the remote units are portable units and each communicates wirelessly with the workstation and the other portable units and each portable unit {60} further includes:

an input unit through which the medical professional associated with the portable unit inputs (1) address of other portable units, (2) instructions to transfer

the diagnostic image to an addressed portable unit, and (3) at least one of voice and text communications such that the medical professional associated with the portable unit can confer with medical professionals associated with other portable units and/or the workstation about the diagnostic image. {Fig. 3; p. 5, l. 24 – p. 6, l. 17}

4. The system as set forth in claim 2, further including:

a diagnostic scanner {16} disposed in a scan room adjacent the imaging workstation, the imaging workstation {18} communicating the imaging protocols to the diagnostic scanner to control the diagnostic scanner during an imaging process of a subject in the diagnostic scanner to generate the diagnostic image. {Fig. 1; p. 4, l. 11-21}

5. The system as set forth in claim 4, wherein the imaging workstation {18} addresses and communicates the diagnostic images of the subject in the diagnostic scanner to the portable unit {60} associated with a one of the medical professionals responsible for reviewing the diagnostic images of the subject {Figs. 1-4; p. 4, 5, l. 3 – p. 6, l. 10} and the portable unit input unit further includes:

at least one of a microphone {76}, a touch screen {78}, a keypad {82}, and a joystick {84} or mouse by which the one of the medical professionals wirelessly sends communications to an operator of the imaging workstation. {Fig. 3; p. 5, l. 24 – p. 6, l. 10}

8. An imaging communication system for communicating between an imaging workstation {18}, from which imaging protocols can be conducted and at which diagnostic images can be displayed, and one or more medical professionals, the workstation being disposed adjacent a scan room {14}, the system comprising: {Fig. 1; p. 4, l. 11-21}

a means {50} for selecting and addressing one or more medical professionals; {Fig. 2; p. 5, l. 3-16}

a means {40} for selecting electronic image representations to be sent to the one or more selected medical professionals; {Fig. 1, p. 4, l. 22 – p. 5, l. 2}

a means {46} for formatting the at least one selected medical professional address and the selected electronic image representations into a wireless transmission format; and {Fig. 1, p. 5, l. 3-16}

a diagnostic scanner {16} disposed in the scan room; {Fig. 1, p. 4, l. 11-21}

a patient support for supporting a patient in the diagnostic scanner {16};

an electronic camera {120} disposed in the scan room to view the patient on the patient support, the electronic camera being connected with the formatting means to format electronic pictures from the electronic camera for wireless communication to a selected portable unit; {Fig. 1, 2; p. 7, l. 9-23}

a plurality of portable units {60}, each unit including:

a monitor means {72} for generating the human-readable display, {Fig. 3; p. 5, l. 24 – p. 6, l. 10}

a remote receiving means {62} for receiving wireless transmissions at remote locations, {Fig. 3; p. 5, l. 17-23}

an address reading means {68} connected with the receiving means for examining each received wireless transmission for a corresponding preselected address, and {Fig. 3; p. 5, l. 24 – p. 6, l. 10}

a video processing means {70} connected with the remote receiving means {62} for, in response to the address reading means {68} finding the corresponding preselected address in the received wireless communication, converting an electronic image portion of the received wireless transmission into an appropriate format for human-readable display. {Fig. 3; p. 5, l. 24 – p. 6, l. 10}

22. An imaging scanner communication system comprising:

a diagnostic scanner {16} disposed in a hospital which generates diagnostic images of a patient disposed in the diagnostic scanner; {Fig. 1; p. 4, l. 11-21}

an optical camera {120} disposed adjacent the diagnostic scanner to generate electronic optical images of the patient disposed in the diagnostic scanner; {Fig. 1, 2; p. 7, l. 9-23}

a workstation {18} which facilitates wireless data transfer between diagnostic scanner operating personnel and one or more hospital radiologists moving around the hospital and remote from the workstation, the workstation receiving the diagnostic images from the diagnostic scanner and the optical images in electronic format and formatting the images for wireless transmission; {Figs. 1, 2; p. 4, l. 22 – p. 5, l. 23}

a wireless communication unit {44} coupled to the workstation {18} which wirelessly transmits patient information and the diagnostic images and the optical images to a selected one of the hospital radiologists; and

a plurality of portable units {60} each carried by one of the hospital radiologists, each portable unit including:

a wireless communications unit {62} which each portable unit receives the patient information, diagnostic images and optical images wirelessly transmitted from the workstation and addressed to it and wirelessly transmits instructions input on an input unit to the workstation, the instructions including instructions to the diagnostic scanner operating personnel regarding the patient in the scanner including instructions for acceptance of the diagnostic images and instructions to re-scan the patient in the diagnostic scanner, each portable unit further including a display {72} on which the diagnostic and optical images are displayed. {Fig. 3; p. 5, l. 17 – p. 7, l. 8}

23. The system as set forth in claim 1, wherein the patient has been injected with a contrast agent and the workstation and the remote units further include:

transmitters and receivers {44} for at least one of voice and text communications which wirelessly transmit voice and/or text communications between the workstation and the remote units {60} such that while holding the patient in the diagnostic scanner, the diagnostic images are transferred to one of the remote units and displayed to a medical professional; and {Figs. 1, 2, 4; p. 3, l. 11-13; p. 5, l. 2-23; p. 8, l. 9-21}

such that after analysis of the human-readable display, the transmitters and receivers wirelessly transmit voice and/or text instructions to the workstation to

one of: (1) release the patient and (2) conduct further diagnostic scans while the contrast agent is still in the patient. {Figs. 1, 2, 4; p. 3, l. 11-13; p. 5, l. 2-23; p. 8, l. 9-21}

24. The system as set forth in claim 1, further including:
a video camera {120} which optically images the patient in the diagnostic scanner to generate electronic optical images of the patient, the workstation {18} formatting unit formats the optical video images and a selected medical professional's address into format for wireless transmission to the remote unit associated with the selected medical professional. {Fig. 1, 2; p. 4, l. 18 – p. 5, l. 16; p. 7, l. 9-24}

25. The system as set forth in claim 24, wherein the remote units {60} further include:

an input device {78, 82, 84} which wirelessly controls a field of view of the video camera which generates the optical video images. {Fig. 3; p. 5, l. 24 – p. 6, l. 17; p. 7, l. 9-24}

26. The system as set forth in claim 1, further including:
a patient records database; {Fig. 1; p. 4, l. 11-21; p. 6, l. 27 – p. 7, l. 8; p. 8, l. 9-17}

a wireless transmitter {112, 114} connected with the database which, in response to the instructions from one of the remote units, wirelessly transmits patient records to the one remote unit. {Fig. 1; p. 4, l. 11-21; p. 6, l. 27 – p. 7, l. 8; p. 8, l. 9-17}

27. The system as set forth in claim 1, wherein the remote unit includes a wireless transmitter {62} and the workstation includes a wireless receiver {44} such that after reviewing the diagnostic images an approval of the diagnostic images is wirelessly sent to the workstation and the patient in the scanner is released. {Fig. 1; p. 5, l. 3-23; p. 8, l. 9-21}

29. The system as set forth in claim 5, wherein the communications from the medical professionals to the operator include:

messages approving the diagnostic images and authorizing release of the subject; and {p. 8, l. 9-21}

messages requesting that the operator control the diagnostic scanner to perform another imaging process with another protocol. {p. 8, l. 9-21}

30. The system as set forth in claim 8, wherein the diagnostic scanner includes a diagnostic scanner {16} and the image representations include diagnostic images of the patient, such that the diagnostic images and the electronic pictures are both communicated to the selected medical professionals and wherein the portable units {60} further include:

an input means {78, 80, 82, 84} for selecting one or more of other ones of the medical professionals and an operator of the workstation and communicating the diagnostic images and/or the electronic pictures to selected other medical professionals and for sending messages to the selected other medical professionals and the operator such that selected medical professionals can confer on the diagnostic images and/or the electronic pictures and provide instructions to the operator to control the diagnostic scanner to generate additional diagnostic images. {Fig. 3; p. 5, l. 24 – p.6, l. 27}

(vi) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 1, 10, 15, and 26 are anticipated in the sense of 35 U.S.C. § 102 over Ma (US 2005/0063575).

Whether claims 2-7 and 27-29 are obvious in the sense of 35 U.S.C. § 103 over Ma as modified by Sumanaweera (US 2005/0049495).

Whether claims 8, 9, 22-25, and 30 are obvious in the sense of 35 U.S.C. § 103 over Ma as modified by Sumanaweera, as further modified by Gelvin (US 7,797,367).

(vii) ARGUMENT

A. Claims 1, 10, & 15 Are Not Anticipated by Ma

Patients are scheduled to be imaged by a diagnostic imaging system at specified times. A significant portion of the time interval scheduled for a patient examination is spent preparing the patient for the diagnostic scan. Once the patient has been prepared, the patient is scanned by an imaging technician. An imaging technician is the operator who operates the scanner and is a different person from the radiologist who reads the diagnostic images and makes the diagnosis. Radiologists have widely different opinions regarding whether the generated diagnostic images are satisfactory.

If the diagnostic images generated are unsatisfactory to the radiologist, then the scanning procedure must be repeated. The radiologist is typically not present during the scanning procedure, but rather is performing other medical duties. The radiologist is paged to come to the imaging center to review and approve the images before the patient is removed from the scanner. Depending upon the size of the hospital and where the radiologist is located, it can take 10-15 minutes or more for the radiologist to reach the imaging center and approve the images. Having the scanner sit idle for 10-15 minutes waiting for the radiologist is a waste of expensive and valuable medical resources. Further, in PET or SPECT imaging, the patient is injected with a radiopharmaceutical which has a short half-life. This half-life provides a relatively narrow temporal window in which a patient can be imaged before the concentration of the radioisotope becomes too low. If the radiologist does not reach the imaging center to review the images within the imaging window of the radioisotope, then the patient cannot be re-imaged at that time. Rather, the patient must return after the radioisotope has fully washed out of the patient's system so that the procedure can be repeated using a known base line. Similar problems arise with other imaging modalities in which a contrast agent is injected. Rescheduling a patient not only wastes valuable medical resources, but is also inconvenient to the patient. Moreover, good medical practices typically require minimizing a patient's exposure to the radioisotopes or contrast agents.

The present application proposes to solve these problems with a wireless communication system that enables the scanner operator to send the diagnostic images to the radiologist for review on a portable, remote unit, such as a tablet computer. This allows the radiologist to review the images immediately and return his/her acceptance or rejection of the images. Moreover, the system enables the radiologist to forward images to other radiologists and confer with them, all while the patient is still in the diagnostic scanner.

Claim 1 calls for a workstation which includes an input device by which a user selects and addresses one or more medical professionals. Claim 1 further calls for a plurality of remote units which each include a receiver which receives wireless transmissions from the workstation and from other remote units, a video processor which converts the received wireless transmissions into a human-readable display, and a display device on which the diagnostic image is displayed in human-readable format.

Ma is concerned with a hospital network in which several medical imaging systems are networked to a central image management system, such as a picture archival and communications system (PACS). Note paragraph [0002]. In such a system, there is a central image management system including a central storage unit. Note paragraph [0003]. The diagnostic images are stored in and retrieved from the central storage unit. Note paragraph [0004]. **Ma** is concerned with improving such a system by introducing new or modified informational attributes within image headers. Note paragraph [0030].

The Examiner directs the applicant's attention to paragraph [0047] of **Ma**. However, paragraph [0047] merely indicates that the operator unit has an input device and a display device on which the operator or others can view the reconstructed images. Paragraph [0047] does not suggest selecting and addressing medical professionals or wirelessly transmitting the images to the selected medical professionals for display on a remote unit. The Examiner refers the applicant to paragraphs [0057] and [0058] of **Ma**. Paragraph [0057] merely describes a virtual machine and [0058] describes the hospital network of Figure 2. Paragraph [0058] discloses that the hospital network can include other computer systems or workstations which can also retrieve the diagnostic images from the memory for

analysis or viewing. There is no suggestion of selecting and addressing the images to one or more medical professionals or of portable devices on which the selected medical professional views the diagnostic images.

The Examiner further refers the applicant to paragraph [0074] of Ma. However, paragraph [0074] merely describes the component of the computer workstation for controlling a magnetic resonance scanner. Particularly, the computer workstation for controlling the magnetic resonance scanner is described as including a pulse sequence server 18 which provides the pulse sequence which is implemented by the medical diagnostic scanner, a data acquisition server 20 which acquires the data from the magnetic resonance scanner, and a data processing server 22 which reconstructs the acquired data into the diagnostic image. These servers are described as being part of the workstation of the technician who operates the magnetic resonance scanner. There is no suggestion of an input device for selecting or addressing one or more medical professionals or of remote units by which the selected medical professional wirelessly receives the diagnostic image.

The Examiner further refers the applicant to paragraph [0105] of Ma. However, paragraph [0105] again describes the workstation of the technician who operates the magnetic resonance scanner and the parts that control the magnetic resonance scanner to perform the imaging sequence, acquire the generated data, and reconstruct it.

The Examiner also refers the applicant to paragraph [0077] of Ma. But paragraph [0077] of Ma merely describes the control sequence for controlling the magnetic resonance scanner, particularly synchronizing the diagnostic scan with ECG or respiratory signals. There is again no disclosure of selecting and addressing a medical professional or of the selected medical professional having a remote unit which receives and displays the diagnostic image.

The Examiner also refers the applicant to paragraph [0103] of Ma. However, paragraph [0103] merely describes the format in which the data is moved through the hospital network which is subject matter not addressed in claim 1.

The Examiner further refers the applicant to paragraphs [0044], [0047], [0059], [0070], [0071], and [0118] of Ma. However, these paragraphs merely indicate that the workstation used by the technician that runs the MRI scanner has a monitor

which displays the reconstructed image and that the network includes a developer-interactive workstation from which a software developer is able to develop selected software applications. There is again no suggestion of selecting and addressing a medical professional, or of a remote unit on which the selected medical professional views the diagnostic image.

The Examiner refers the applicant to paragraph [0071], which discloses that there is a hospital network. The Examiner also refers the applicant to paragraphs [0087] and [0098] as being directed to a reconstruction processor. The Examiner further refers the applicants to paragraphs [0058] and [0082] as describing a patient records database. In such hospital systems, the patient records database is typically accessible to others to retrieve medical records and images. None of these paragraphs disclose or fairly suggest an input device by which a user selects and addresses a medical professional or a remote unit on which the selected medical professional views the image.

Accordingly, it is submitted that **claims 1, 10, 15 and 26** are not anticipated by Ma.

It is further submitted that dependent **claims 2-7, 10, 15, and 23-29** are patentable by virtue of their dependence from claim 1.

B.

Claim 2-7 & 29 Distinguish Patentably Over Ma as Modified By Sumanaweera

Claim 2 calls for each portable remote unit to include an input unit which inputs addresses of other portable units and instructions to transfer the diagnostic image to an addressed portable unit and at least one of voice and text communications with which the medical professionals associated with the portable units can confer. Ma is not alleged to include such limitations. **Sumanaweera** discloses portable ultrasonic imagers which send data from remote locations. However, Sumanaweera does not disclose portable units associated with selected medical professionals which have an input device by which received diagnostic images can be forwarded to other selected medical professionals or which enable the selected medical professional to forward the and confer with an additional selected medical professional.

Accordingly, it is submitted that claim 2 and claims 3-7 and 29 dependent therefrom distinguish patentably over the references of record.

C. Claim 23 Distinguishes Patentably Over the References of Record

Claim 23 depends from claim 1 and distinguishes over Ma for the reasons set forth in Section A of this Brief.

Moreover, claim 23 calls for the patient to have been injected with a contrast agent and for the transmission of instructions to the workstation to one of: (1) release the patient and (2) conduct further diagnostic scans while the contrast agent is still in the patient. The Examiner has not pointed to any portion of Ma, Sumanaweera, or Galvin which discloses, teaches, or suggests injecting a patient with contrast agent or sending instructions to the workstation while the contrast agent is still in the patient.

Accordingly, it is submitted that claim 23 distinguishes patentably over the references of record.

D. Claim 24 Distinguishes Patentably Over the References of Record

Claim 24 depends from claim 1 and is patentable for the reasons set forth in Section A of this Brief.

Claim 24 further calls for a video camera which optically images a patient and for the workstation to format and address both the optical video images and the diagnostic images to a selected medical professional's address. As set forth in Section A above, Ma discloses a network with several workstations, but does not disclose selecting and addressing images to a selected medical professional.

Moreover, the Examiner has pointed to no part of any reference of record which teaches sending both diagnostic images and optical images of the patient in the scanner. Ma discloses generating diagnostic images, but provides no teaching that optical images would further be of value. Galvin discloses only generating optical images. There is no teaching, suggestion, or motivation to generate and provide a selected medical professional with both diagnostic and optical images.

Accordingly, it is submitted that claim 24 distinguishes patentably and unobviously over the references of record.

E. Claim 26 Is Not Anticipated By Ma

Claim 26 depends from claim 1 and is not anticipated by Ma for the reasons set forth in Section A above.

Claim 26 further calls for a patient records database. Thus, claim 26 calls for a remote unit to be able to receive both messages sent from the workstation and messages retrieved from a patient records database. Ma does not disclose a remote unit which both receives sent messages and which receives messages from a patient database.

Accordingly, it is submitted that claim 26 distinguishes patentably over the references of record.

F. Claim 27 Distinguishes Patentably Over the References of Record

Claim 27 depends from claim 1 and is also allowable for the reasons set forth in Section A of this Brief.

Claim 27 further calls for wireless transmitter and a wireless receiver such that after reviewing the diagnostic images, an approval of the diagnostic images is wirelessly sent to the workstation and the patient in the scanner is released. The Examiner has pointed to no portion of Ma or Sumanaweera which suggests wireless communications for releasing a patient from a scanner.

Accordingly, it is submitted that claim 27 distinguishes patentably over the references of record.

G. Claim 29 Distinguishes Patentably Over the References of Record

Claim 29 calls for the messages sent from the portable remote unit to be communications from the medical professionals to the operator and for the messages to include messages approving the diagnostic images and release of a subject and messages requesting the operator control the diagnostic scanner to perform another imaging process with another protocol. The Examiner points to no portion of Ma or Sumanaweera which discloses, teaches, or fairly suggests messages of this nature.

Accordingly, it is submitted that **claim 29** distinguishes patentably over the references of record.

H. Claims 8, 9, & 30 Distinguish Patentably Over the References of Record

Claim 8 calls for a means for selecting and addressing one or more medical professionals. The Examiner refers the applicant to paragraphs [0057] and [0058]. These paragraphs disclose a hospital network which includes a plurality of workstations which can retrieve and view images. However, the workstations are all described generically and are not described as being associated with a specific medical professional. These paragraphs disclose no means for selecting and addressing one or more medical professionals.

Claim 8 further calls for a diagnostic scanner disposed in the scan room along with an electronic camera disposed in the scan room to view the patient on the patient support. The Examiner acknowledges that an electronic camera is not disclosed by Ma or Sumanaweera. Rather, the Examiner refers the applicant to **Galvin**. However, Galvin is concerned with remote viewing. There is no suggestion in Galvin or other other references relied upon by the Examiner of generating both diagnostic images and electronic camera images of the patient in the diagnostic scanner. It is submitted that Galvin merely shows that remote cameras are known, but provides no motivation or teaching that there would be any reason or advantage to monitor patients in a diagnostic scanner.

Accordingly, it is submitted that **claim 8 and claims 9 and 30 dependent therefrom** distinguish patentably over the references of record.

I. Claim 30 Distinguishes Patentably Over the References of Record

Claim 30 further adds an input means by which the selected medical professional selects additional medical professionals to whom the diagnostic and/or electronic images are forwarded such that the medical professionals can confer on the images. The Examiner has not pointed to any portion of Ma, Sumanaweera, or Galvin which provides, teaches, or fairly suggests a means for forwarding images among medical professionals and for conferencing among medical professionals about the

images. Rather, the references merely disclose that hospital networks with multiple workstations are known.

Accordingly, it is submitted that **claim 30** distinguishes patentably over the references of record.

J.

Claim 22 Distinguishes Patentably Over the References of Record

Claim 22 calls for a diagnostic scanner which generates diagnostic images of a patient disposed in the diagnostic scanner and for an optical camera which generates optical images of the patient disposed in the scanner. None of the references of record teach or fairly suggest generating both optical and diagnostic images of the same patient, much less generating optical images of the patient in the diagnostic scanner.

Galvin, referenced by the Examiner, merely shows that images can be generated and sent. Galvin provides no teaching or motivation to generate images of a patient in a diagnostic scanner, much less any teaching of generating both diagnostic and optical images of a patient disposed in a diagnostic scanner.

Claim 22 further calls for wirelessly transmitting patient information, the diagnostic images, and the optical images to a selected one of the hospital radiologists who are moving around the hospital. Ma discloses a hospital network with a plurality of workstations, but does not suggest selecting one of a plurality of hospital radiologists, much less one of the hospital radiologists who is moving around the hospital.

Claim 22 further calls for a plurality of portable units, each carried by one of the hospital radiologists. Ma and the other references of record do not teach or fairly suggest portable units carried by hospital radiologists.

Claim 22 further calls for each of the portable units to include a wireless communication unit which receives the patient information, the diagnostic images, and the optical images addressed to it from the workstation and which transmit instructions to the workstation regarding the patient in the scanner including instructions for acceptance of the diagnostic images and instructions to rescan the patient in the scanner.

Claim 22 further calls for the portable units to include a display on which the diagnostic and optical images are displayed.

Ma discloses a hospital network with a plurality of workstations. Sumanaweera discloses an ultrasonic imaging system including a plurality of portable diagnostic scanners, particularly portable ultrasonic scanning devices and do not suggest portable units carried by hospital radiologists moving around the hospital, much less portable units which receive diagnostic and optical images of the patient, much less portable units which input instructions for acceptance of diagnostic images and instructions to re-scan the patient in the scanner.

Accordingly, it is submitted that claim 22 distinguishes patentably and unobviously over the references of record.

K. Conclusion

For the reasons set forth above, it is submitted that claims 1-10, 15, and 22-30 are not anticipated by and distinguish patentably and unobviously over the references of record. An early reversal of all of the Examiner's rejections is requested.

Respectfully submitted,

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(viii) CLAIMS APPENDIX

1. (Rejected) An imaging communication system for communicating between an imaging workstation, from which imaging protocols are conducted and at which diagnostic images are displayed, and one or more medical professionals, the system comprising:

the workstation including:

an input device by which a user selects and addresses one or more medical professionals and selects diagnostic image representations to be sent to the one or more selected medical professionals;

a unit which formats the at least one selected medical professional address and the selected diagnostic image representations into a wireless transmission format and wirelessly transmits the selected electronic image representation with the selected medical professional address;

a plurality of remote units, each remote unit including:

a receiver which receives wireless transmissions from workstations and from other remote units;

an address reader connected with the receiver which address reader examines each received wireless transmission for a corresponding preselected address;

a video processor connected with the receiver to, in response to the address reader finding the corresponding preselected address in the received wireless communication, convert a diagnostic image portion of the received wireless transmission into an appropriate format for human-readable display; and

a display device on which the diagnostic image is displayed in human-readable format.

2. (Rejected) The system as set forth in claim 1, the remote units are portable units and each communicates wirelessly with the workstation and the other portable units and each portable unit further includes:

an input unit through which the medical professional associated with the portable unit inputs (1) address of other portable units, (2) instructions to transfer the diagnostic image to an addressed portable unit, and (3) at least one of voice and text communications such that the medical professional associated with the portable unit can confer with medical professionals associated with other portable units and/or the workstation about the diagnostic image.

3. (Rejected) The system as set forth in claim 2, wherein the portable units include at least one of notebook computers and tablet personal computers which have sufficient resolution that the associated medical professional can determine if the diagnostic image is satisfactory for diagnostic purposes.

4. (Rejected) The system as set forth in claim 2, further including:

a diagnostic scanner disposed in a scan room adjacent the imaging workstation, the imaging workstation communicating the imaging protocols to the diagnostic scanner to control the diagnostic scanner during an imaging process of a subject in the diagnostic scanner to generate the diagnostic image.

5. (Rejected) The system as set forth in claim 4, wherein the imaging workstation addresses and communicates the diagnostic images of the subject in the diagnostic scanner to the portable unit associated with a one of the medical professionals responsible for reviewing the diagnostic images of the subject and the portable unit input unit further includes:

at least one of a microphone, a touch screen, a keypad, and a joystick or mouse by which the one of the medical professionals wirelessly sends communications to an operator of the imaging workstation.

6. (Rejected) The system as set forth in claim 4, wherein the portable unit input unit includes a microphone and formatting electronics which format audio information from the microphone into an appropriate format for wireless transmission such that the one of the medical professionals associated with the

portable unit that received the diagnostic images can forward the diagnostic images to other medical professionals and verbally discuss the diagnostic images with the other medical professional.

7. (Rejected) The system as set forth in claim 2, wherein the workstation further includes:

a receiver which receives wireless communications from the portable units;

an address reader which reads an address portion of the received wireless communications and determines whether the received address portions match a preselected workstation address; and

a converting unit which converts an input information portion of the received wireless communication whose corresponding address portion matches the preselected workstation address into at least one of a human-readable and hearable format.

8. (Rejected) An imaging communication system for communicating between an imaging workstation, from which imaging protocols can be conducted and at which diagnostic images can be displayed, and one or more medical professionals, the workstation being disposed adjacent a scan room, the system comprising:

a means for selecting and addressing one or more medical professionals;

a means for selecting electronic image representations to be sent to the one or more selected medical professionals;

a means for formatting the at least one selected medical professional address and the selected electronic image representations into a wireless transmission format; and

a diagnostic scanner disposed in the scan room;

a patient support for supporting a patient in the diagnostic scanner;

an electronic camera disposed in the scan room to view the patient on the patient support, the electronic camera being connected with the formatting means

to format electronic pictures from the electronic camera for wireless communication to a selected portable unit;

 a plurality of portable units, each unit including:

 a monitor means for generating the human-readable display,

 a remote receiving means for receiving wireless transmissions at remote locations,

 an address reading means connected with the receiving means for examining each received wireless transmission for a corresponding preselected address, and

 a video processing means connected with the remote receiving means for, in response to the address reading means finding the corresponding preselected address in the received wireless communication, converting an electronic image portion of the received wireless transmission into an appropriate format for human-readable display.

9. (Rejected) The system as set forth in claim 8, further including:

 an electromechanical control means for adjusting at least one of a field of view, focus, and direction of the electronic camera, the electromechanical control means being connected with a receiving means and a workstation address recognition means to receive control signals originating with the input means of the portable unit.

10. (Rejected) The system as set forth in claim 1, wherein the formatting unit is connected with a hospital based network, which includes wireless transmission units.

11-14. (Cancelled)

15. (Rejected) The system as set forth in claim 1, further including:

a diagnostic scanner which conducts a diagnostic scan of a patient positioned in the diagnostic scanner under control of the workstation to generate diagnostic image information;

a reconstruction processor which reconstructs the generated diagnostic information into diagnostic images.

16-21. (Cancelled)

22. (Rejected) An imaging scanner communication system comprising:

a diagnostic scanner disposed in a hospital which generates diagnostic images of a patient disposed in the diagnostic scanner;

an optical camera disposed adjacent the diagnostic scanner to generate electronic optical images of the patient disposed in the diagnostic scanner;

a workstation which facilitates wireless data transfer between diagnostic scanner operating personnel and one or more hospital radiologists moving around the hospital and remote from the workstation, the workstation receiving the diagnostic images from the diagnostic scanner and the optical images in electronic format and formatting the images for wireless transmission;

a wireless communication unit coupled to the workstation which wirelessly transmits patient information and the diagnostic images and the optical images to a selected one of the hospital radiologists; and

a plurality of portable units each carried by one of the hospital radiologists, each portable unit including:

a wireless communications unit which each portable unit receives the patient information, diagnostic images and optical images wirelessly transmitted from the workstation and addressed to it and wirelessly transmits instructions input on an input unit to the workstation, the instructions including instructions to the diagnostic scanner operating personnel regarding the patient in the scanner including instructions for acceptance of the diagnostic images and instructions to re-scan the patient in the diagnostic scanner, each portable unit further including a display on which the diagnostic and optical images are displayed.

23. (Rejected) The system as set forth in claim 1, wherein the patient has been injected with a contrast agent and the workstation and the remote units further include:

transmitters and receivers for at least one of voice and text communications which wirelessly transmit voice and/or text communications between the workstation and the remote units such that while holding the patient in the diagnostic scanner, the diagnostic images are transferred to one of the remote units and displayed to a medical professional; and

such that after analysis of the human-readable display, the transmitters and receivers wirelessly transmit voice and/or text instructions to the workstation to one of: (1) release the patient and (2) conduct further diagnostic scans while the contrast agent is still in the patient.

24. (Rejected) The system as set forth in claim 1, further including:

a video camera which optically images the patient in the diagnostic scanner to generate electronic optical images of the patient, the workstation formatting unit formats the optical video images and a selected medical professional's address into format for wireless transmission to the remote unit associated with the selected medical professional.

25. (Rejected) The system as set forth in claim 24, wherein the remote units further include:

an input device which wirelessly controls a field of view of the video camera which generates the optical video images.

26. (Rejected) The system as set forth in claim 1, further including:

a patient records database;

a wireless transmitter connected with the database which, in response to the instructions from one of the remote units, wirelessly transmits patient records to the one remote unit.

27. (Rejected) The system as set forth in claim 1, wherein the remote unit includes a wireless transmitter and the workstation includes a wireless receiver such that after reviewing the diagnostic images an approval of the diagnostic images is wirelessly sent to the workstation and the patient in the scanner is released.

28. (Rejected) The system as set forth in claim 1, wherein the remote unit includes a wireless transmitter and the workstation includes a wireless receiver such that after analyzing the diagnostic image on the remote unit display device, instructions are wirelessly sent to the workstation to control the diagnostic scanner to generate additional diagnostic images of the patient.

29. (Rejected) The system as set forth in claim 5, wherein the communications from the medical professionals to the operator include:

messages approving the diagnostic images and authorizing release of the subject; and

messages requesting that the operator control the diagnostic scanner to perform another imaging process with another protocol.

30. (Rejected) The system as set forth in claim 8, wherein the diagnostic scanner includes a diagnostic scanner and the image representations include diagnostic images of the patient, such that the diagnostic images and the electronic pictures are both communicated to the selected medical professionals and wherein the portable units further include:

an input means for selecting one or more of other ones of the medical professionals and an operator of the workstation and communicating the diagnostic images and/or the electronic pictures to selected other medical professionals and for sending messages to the selected other medical professionals and the operator such that selected medical professionals can confer on the diagnostic images and/or the electronic pictures and provide instructions to the operator to control the diagnostic scanner to generate additional diagnostic images.

(ix) EVIDENCE APPENDIX

None.

(x) RELATED PROCEEDINGS APPENDIX

None.